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EXAMINER

LE, HIEU C

ART UNIT

PAPER NUMBER

2142

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/911,844

Applicant(s)

GENDRON ET AL.

Examiner

Hieu c. Le

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

1. The amendment filed 8/10/05 have been entered and made of record.
2. The objection of claims 2-4, 8-12,15-20 are withdrawn.
3. The Applicant 's argument filed 8/10/05 have been fully considered but they are not persuasive for the following reasons:

As to claims 1,7,14 Applicant alleges that “ For example, Cook does not teach [.]” (p. 8, line 8-p. 9, line 4). The Examiner disagrees. Firstly, Cooke discloses receiving images or studies from imaging modalities (col. 9, line 65-col. 10, line 3) and routing the image data based on a predetermined routing rules based on a set destination (destination information) and patient location (patient data) and use the routing rules to select a route to route the network communication based on destination and patient location (patient data) (col. 2, lines 33-49). As shown in Fig. 13, the study information form (received network communication) comprises patient ID (patient data) and location ICU (destination). Secondly, the routing rules are based on a set of destination and patient location (patient data) (col. 2, lines 33-51, col. 13, lines 12-15, col. 15, line 56-col. 16, line 5 and table 3) even though Cook does not disclose the comparing step, this step is inherent in Cooke's method because images and studies are routed to an appreciate location based on routing rules that includes destination set and patient location (patient data) which can not be achieved unless the destination information and patient location (patient data) included in these images or studies are compared, matched or correlated to destination set and patient location (patient data) in the routing rules in order to determine the appropriate route based on that comparison.

As to claim 12, Applicant alleges "Applicant respectfully traverses [.]". (p.9, lines 5-20). The Examiner disagrees. Fig. 7 shows a routing form that is used to assign a routing name to the imaging modalities and provide other information to the PACS. Table 81 includes a field mapping input 86 where a DICOM mapping of an accession number or patient ID is inputted and an input for a "Broker AE title" the broker as defined in col. 12, line 66 is a gateway i.e. a "gateway AE title" to enter the accession number associated with the image or study produced by the imaging modality and being routed and routing pattern input 90 to input the routing associated with the imaging modality. It is clear that the routing table 81 is associating or linking (mapping) a gateway AE title accession number associated with the image or study produced by the imaging modality and is being routed (entry 94) with a DICOM mapping of the accession number (entry 86) with a routing pattern (entry 90) which reads on the claim as broadly claimed.

As to claims 3-6,8-11,13,16-17 (p. 10, line 11-p. 11, line 14) Applicant argues the same arguments about Cook which have been responded to it above.

As to claims 18-20, Applicant alleges "Applicant respectfully submits [.]". (p. 11, line 18-p. 12, line 7). The Examiner disagrees. Cooke is using HTML based rules (col. 17, lines 1-5) Wong discloses an DICOM system for medical imaging that uses XML based set of rules to further enhance browser capabilities by providing user defined types (p. 87, Lc, lines 8-21).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 7, 12, 14, 15 are rejected under 35 .S.C. 102(e) as anticipated by Cooke et al. [ US. Pat.No. 6,574,629] .

As to claim 1, Cooke discloses a method comprising:

storing routing information mapping destinations to routes within a network [ a user input information of routing pattern in the form shown in Fig. 7, the routing pattern associated with routing destinations (col. 17; lines 52-60), the routing pattern is added to the routing rule in the table to the network gateway (col. 18, line 2-3, col. 19, lines 2-5) (i.e. stored in the Gateway)].

storing a set of routing rules (col. 18; line 2-6)].

receiving a network communication comprising destination information and patient data [ the gateway receives images or studies (data) (col. 9; line 65-col. 10, line 3), and referring physical or patient location (destination information) (col. 13, lines 13-15, p. 17, lines 26-30)].

selecting a route from the routing information based on the destination information of the network communication and a result of the compassion [col. 16, lines

62-65, col. 18; lines 7-16, lines 41-53]] and forwarding the network communication according to the selected route (col. 15, lines 61-65).

Cooke discloses that the images (network communication) is routed to appropriate location based on a predetermined rules (col. 15, lines 60-65).

Cooke does not explicitly discloses comparing at least a portion of the patient data to the set of routing rules.

However, this step is inherent in Cooke's method because as explained above the images and studies are routed to an appropriate location based on predetermined routing rules that include destination set and patient location (patient data) which cannot be achieved unless the destination set and patient location (patient data) included in the received images or studies are compared matched or correlated to destination set and patient location (patient data) in the routing rules in order to determine the appropriate route based on the comparison.

As to claim 2, Cooke further discloses wherein the network comprises a medical imaging network and the network communication complies with Digital Imaging and Communication in Medicine (DICOM) protocol, and further wherein storing routing information comprises storing routing information mapping Application Entity Names (AENames) to routes within the medical imaging network [ Fig. 7 shows a routing form that is used to assign a routing name to the imaging modalities and provide other information to the PACS. Table 81 includes a field mapping input 86 where a DICOM mapping of an accession number or patient ID is inputted and an input for a "Broker AE title" the broker as defined in col. 12, line 66 is a gateway i.e. a "gateway AE title" to

enter the accession number associated with the image or study produced by the imaging modality and being routed and routing pattern input 90 to input the routing associated with the imaging modality. It is clear that the routing table 81 is associating or linking (mapping) a gateway AE title accession number associated with the image or study produced by the imaging modality and is being routed (entry 94) with a DICOM mapping of the accession number (entry 86) with a routing pattern (entry 90) ].

Claim 7 is a broader version of claim 1, and is rejected for the same reasons indicated in claim 1.

As to claim 12, refer to claim 2 rejection.

As to claim 14, refer to claim 1 rejection.

Cooke further discloses a computer readable medium (Fig. 2).

As to claim 15, refer to claim 2 rejection.

6. Claims 3, 8, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooke et al. [ US. Pat.No. 6,574,629] as applied to claims 2, 7,15 above and further in view of F. Foiravanti et al. "The Organization and Management of a Wide Environment of DICOM Compliant Device: the DICOM Domain Management Service Class", IEEE , pp 20-25,1998.

As to claim 3, Cooke discloses using application Entity (AE) titles (Fig. 7) and IP routing capabilities (col. 15, lines 45-46).

Cooke does not discloses wherein selecting a route from the routing information a comprises comparing an AENAME defined within the network communication to the AENAME defined within the routing information.

Fioravanti discloses a system for organizing DICOM services in a hospital structure by identifying DICOM devices that communicate with each other through an AE title (Application entity) title which organize the structure in domains (Page 21, RC, lines 1-14). DICOM application entities are able to communicate with each other through an AE title can communicate by checking the AE titles and the IP address ( p.23, Lc, lines 14-25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Fioravanti's teachings to modify the method of Cooke by checking AE title in the network communication with AE title within routing information in order to manage and organize a large number of devices and for handling a valid security policy.

As to claim 8, refer to claim 3 rejection.

As to claim 16, refer to claim 3 rejection.

7. Claims 4, 9, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooke et al. [ US. Pat.No. 6,574,629] as applied to claims 1, 7, 14 and in view of Rothschild et al. [Pub. No. 2002/0016718 A1].

As to claim 4, Cooke discloses wherein the network communication complies with the DICOM protocol, and further wherein comparing at least a portion of the medical imaging data comprises: parsing the medical imaging data and assessing a routing rule from the set of routing rules based on the DICOM (col. 17, lines 13-25).

Cooke does not discloses a set of DICOM tags and corresponding data.

Rothschild discloses a medical image manage system and method that uses a



Central data management system to centrally manage the storage and transmission of electronic records containing medical images ( col. 5, [0036-0037] ).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Rothschild's teachings to modify the method of Cooke by using a set of DICOM tags in order to electronically transport medical images efficiently.

As to claim 9, refer to claim 4 rejection.

As to claim 17, refer to claim 4 rejection.

8. Claims 5-6, 10-11, 13,18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooke et al. [ US. Pat.No. 6,574,629] as applied to claims 1, 7 above and further in view of Stephen T.C Wong et al. " A Digital Library for Biomedical Imaging on the Internet." IEEE, pp. 84-91, 1999.

As to claim 5, Cooke discloses storing a set of routing rules comprises storing an XML-based set of rules, wherein the rules conform to a user-defined grammar for routing the medical imaging data [ As shown in 11 the routing rules are added to routing table (stored) by a user defined grammar], Cooke using HTML based rules (col. 17, lines 1-5). Cooke does not disclose XML based set of rules. Wong discloses an DICOM system for medical images that uses XML to further enhance browser capabilities by providing user defined types (p. 87, Lc, lines 8-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Wong's teachings to modify the method of Cooke by XML Based rules in order to enhance browser capabilities by providing user defined types.

As to claim 6, Cooke further discloses further comprising presenting an interface for receiving user input that defines the user-defined grammar [ the form displayed to the user to enter and modify rules in Fig. 11, is an interface receiving user input ].

As to claim 10, refer to claim 5 rejection.

As to claim 11, refer to claim 6 rejection.

As to claim 13, refer to claim 5 rejection.

As to claim 18, refer to claim 5 rejection.

As to claim 19, refer to claim 6 rejection.

As to claim 20, Cooke further discloses wherein the user input defines tags including a patient identifier, an imaging modality [ patient ID (col. 17, lines 50-51) imaging modality (Fig. 11)].

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2142

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu Le whose telephone number is (571) 272-3897. The examiner can normally be reached on Monday to Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Caldwell Andrew, can be reached on (571) 272-3868. The fax phone number is (571)-273-3897.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 273-8300.

Hieu Le

A handwritten signature in cursive script that reads "Andrew Caldwell".

ANDREW CALDWELL  
SUPERVISORY PATENT EXAMINER